

Draft Approval of Site-Specific Land Disposal Restrictions Treatability Variance
The Dow Chemical Company, Midland, Michigan
MID 000 724 724

In accordance with Title 40 of the Code of Federal Regulations (CFR), Section 268.44(h), and the authority granted by the U.S. Environmental Protection Agency to implement this regulation under R 299.9311 of the administrative rules promulgated pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA), The Dow Chemical Company, Michigan Operations (Dow), is granted a site-specific land disposal restrictions treatability variance approval (Approval) by the Director of the Department of Environmental Quality (DEQ). This Approval is for contaminated soils, including those contaminated with dioxins and furans exhibiting a hazardous waste characteristic or containing listed hazardous waste generated during corrective action or as a result of upgrade or maintenance of corrective action management systems, including the Revetment Groundwater Interceptor System (RGIS), at the facility located in Midland, Michigan (Material Subject to Variance).

The Material Subject to Variance, which is hazardous waste according to the provisions of the Part 111 Rules, including soils contaminated by hazardous waste identified by hazardous waste number F039, is now subject to alternate treatment standards pursuant to the following conditions:

1. This Approval is based on the information submitted to the DEQ by Dow in the Variance Petition submitted on October 1, 2007, the information in the *Treatability Variance Petition for Soils Generated from Maintenance and Repair of the Revetment Groundwater Interception System (RGIS)*, Revision 1, dated February 1996, and the *Revised Petition for Treatability Variance for Soils Generated from Maintenance and Repair of the Revetment Groundwater Interception System (RGIS) and Corrective Action Management Systems*, dated January 22, 2008. If information obtained by the Director of the DEQ shows that this information is erroneous, inaccurate, or otherwise unreliable, the Director may amend or revoke this Approval.
2. Prior to land disposal, the Material Subject to Variance must not contain dioxins or furans with a toxic equivalence (TEQ) greater than 50 parts per billion. The TEQ shall be determined using the *2005 World Health Organization Reevaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-Like Compounds*, Van den Berg, M., L. Birnbaum, M. Denison, M. De Vito, W. Farland, M. Feeley, H. Fiedler, H. Hakansson, A. Hanberg, L. Haws, M. Rose, S. Safe, D. Schrenk, C. Tohyama, A. Tritscher, J. Tuomisto, M. Tyskind, M. Walker, and R.E. Peterson. 2006. *Toxicological Sciences* 93 (2):223-241.
3. Prior to land disposal, the Material Subject to Variance must not contain concentrations of constituents greater than 50 times the applicable universal treatment standards specified in 40 CFR, Section 268.48, except as allowed in Condition 2, above, for dioxins and furans.
4. The Material Subject to Variance must not exhibit the characteristics of ignitability, corrosivity, or reactivity at the time of land disposal.
5. The Material Subject to Variance shall be land disposed in Dow's Salzburg Landfill.
6. Dow must comply with the waste analysis requirements for restricted waste found in 40 CFR, Section 268.7. Records associated with this condition shall be kept in the facility operating record.

7. Environmental data used to demonstrate compliance with this Approval must be submitted to the DEQ consistent with the requirements of Dow's Hazardous Waste Management Facility Operating License (License) Condition II.L.4.
8. Dow must maintain records of the disposition and volume of soils subject to this Approval consistent with the requirements of their License Condition II.U.
9. Work plans for each modification to a corrective action management system or other corrective action work must be approved by the DEQ prior to implementation consistent with the requirements of Dow's License.
10. All soils determined not to be hazardous waste are not subject to this Approval and shall be managed as required by state and federal law.
11. Dow may petition the Director of the DEQ to amend the scope and conditions of this Approval. Minor amendments, such as incorporation of new regulations, may be approved at the discretion of the Director. Dow and the Director shall allow for notification and comment of interested parties prior to making major changes to the scope of this Approval.
12. If the DEQ determines, at any time, that a new Best Available Technology (BAT) is available as an alternative to both thermal destruction and landfilling for contaminated soils similar in both quantity and contamination to those subject to this Approval, which allows a significant decrease in risk as compared to the actual risk associated with the disposal of the soils in the Salzburg Landfill, the DEQ may require Dow to employ that BAT to treat newly-generated contaminated soils in accordance with the then-existing federal Resource Conservation and Recovery Act of 1976 (RCRA) regulations and any applicable laws.
13. This Approval does not preclude Dow from disposing of the Material Subject to Variance in accordance with Part 111 of the NREPA at a properly licensed hazardous waste treatment, storage, or disposal facility or at an out-of-state facility in accordance with the RCRA and that state or country's applicable regulations.
14. Violations of this Approval are subject to the enforcement provisions of Part 111 of the NREPA, the RCRA, and other applicable laws.
15. Nothing in this Approval shall affect or limit the DEQ's ability to bring any claim or causes of action or take administrative or judicial action allowed by law against any party.
16. This approval expires ten years from the effective date. This Approval may be extended to facilitate corrective actions at the Midland Operations site or incorporated into the License.

The effective date of this Approval is the date signed by the Director of the DEQ.

Department of Environmental Quality

Steven E. Chester, Director

Date: _____